

V. REMARKS

It is respectfully submitted that this Office Action is atypical. On Page 2 of the Detailed Action, the Examiner addresses independent claims 1 and 10 and the dependent claims and applies only Hillenkamp et al. (U.S. Patent No: 6,423,966). The Examiner fails to assert the basis for applying this reference. The Examiner indicates that Hillenkamp does "teach" features that are contrary to the arguments that Applicant set forth in Applicant's previously-filed Amendment. At this stage, Applicant can only assume that all of the claims are rejected under 35 U.S.C. 102(b).

As assumed, claims 1-14 are rejected under 35 U.S.C. 102(b) as anticipated by Hillenkamp et al. (U.S. Patent No: 6,423,966). The rejection is respectfully traversed.

It is respectfully submitted that the United States Patent and Trademark Office fails to establish a *prima facie* case of the anticipation. The courts have required for §102 anticipation that a single reference teach (i.e., identically describe) each and every element or step of the rejected claim or else the reference falls under §103. Atlas Powder v. E. I. du Pont, 750 F.2nd 1569, 224 USPQ 409 (Fed. Cir. 1984), Jamesbury Corp. v. Litton Industrial Products, 756 F.2nd 1556, 225 USPQ 253 (Fed. Cir. 1985).

The substrate 3 and the metal plate 61 of Hillenkamp are not coincident with the metal plate 44 of the present invention. The substrate 3 is optically transparent and the sample is placed on the substrate 3 to be illuminated through the substrate 3 by a fiber 10 (column 9, lines 29-31). The metal plate 61 provides a substantially flat field about the substrate 3 for enhanced emission and acceleration geometry (column 8, lines 56-60). The substrate 3 and the metal plate 61 are not to support a membrane on their flat surfaces.

Claim 1 is directed to a laser desorption ionization mass spectrometric method which applies a laser beam to a sample placed on a sample plate attached to a mass spectrometer so that the sample is ionized and then analyzed. Claim 1 recites the steps of:

adsorbing a sample on a membrane which has been affixed on a flat

metal plate of the sample plate;

applying a reagent to the adsorbed sample on the membrane to subject the sample to a modifying reaction; and

analyzing the sample through a laser desorption ionization mass spectrometric method by attaching the sample plate after the modifying reaction to a mass spectrometer.

It is respectfully submitted that the rejection is improper because the applied art fails to teach each element of claim 1. Specifically, it is respectfully submitted that the applied art fails to teach adsorbing a sample on a membrane. Also, it is respectfully submitted that the applied art fails to teach a membrane which has been affixed on a flat metal plate of the sample plate. It follows that the applied art further fails to teach the step of applying a reagent to the adsorbed sample on the membrane. By contrast, it is respectfully submitted that the applied art teaches a sample plate and membrane but the sample plate and membrane are spaced apart from one another by spacers and a sample material is disposed on the sample plate in the space formed between the sample plate and membrane. As a result, it is respectfully submitted that claim 1 is allowable over the applied art.

Claim 10 is directed to a sample plate that includes a flat metal plate having a flat surface and a membrane being affixed onto the flat surface of the flat metal plate.

It is respectfully submitted that the rejection is improper because the applied art fails to teach each element of claim 10. Specifically, it is respectfully submitted that the applied art fails to teach a flat metal plate having a flat surface and a membrane being affixed onto the flat surface of the flat metal plate. As a result, it is respectfully submitted that claim 10 is allowable over the applied art.

Claims 2-9 depend from claim 1 and include all of the features of claim 1. Claims 11-14 depend from claim 10 and include all of the features of claim 10. Thus, it is respectfully submitted that the dependent claims are allowable at least for the reasons the independent claims are allowable as well as for the features they recite.

For instance, claim 2 recites the step of, prior to attaching the sample plate to the mass spectrometer after the modifying reaction, applying a matrix solution to the adsorbed sample. Claim 3 recites that the adsorbing step of the sample onto the membrane is carried out through a method in which a medium on which the sample is developed is superposed on the membrane on the sample plate and a voltage is applied between the medium and the membrane so that the sample is transferred onto the membrane from the medium. Claim 4 recites that the sample to be adsorbed on the membrane is at least a material selected from the group consisting of proteins, peptides, saccharides, lipids, nucleic acid molecules and a mixture thereof. Claim 5 recites that the sample is separated by a method selected from the group consisting of two-dimensional electrophoresis in which isoelectric focusing electrophoresis and SDS polyacrylamide electrophoresis are combined, SDS polyacrylamide electrophoresis and other chromatography methods.

Claim 6 recites that the modifying reaction is a reaction caused by an enzyme selected from the group consisting of proteolytic enzyme, glycolytic enzyme, nuclease and a combination thereof. Claim 7 recites that the membrane is at least a polymer selected from the group consisting of PVDF, nitrocellulose, nylon (registered trademark) and derivatives thereof. Claim 8 recites that the sample adsorbed on the membrane is visualized on the membrane. Claim 9 recites that the visualizing process is carried out by using at least a material selected from the group consisting of a bio-sample, a color-developing reagent, a fluorescence reagent, metal, ultraviolet rays and a combination thereof.

Claim 11 recites that the metal plate has a homogeneous flat face and the membrane is closely made in contact with the flat face of the metal plate to be affixed thereon with a conductive substance interpolated in between. Claim 12 recites that the conductive substance is a conductive double-sided tape. Claim 13 recites that the membrane is at least a polymer selected from the group consisting of PVDF, nitrocellulose, nylon (registered trademark) and derivatives thereof.

Withdrawal of the rejection is respectfully requested.

Also, Applicant would like to advise the Examiner that it is the Applicant's understanding that the Examiner withdrew the rejection of claims 2, 4-6, 8, 9, 11 and 12 under 35 U.S.C. 103(a) as being unpatentable over Hillenkamp in view of Little et al. (US Patent Publication Number 2003/0096426) because Little is not a proper prior art reference as argued in our previously-filed Amendment. Specifically, it was argued that Little cannot be applied as a prior art reference in that the publication date of Little is May 22, 2003 and the Applicant claims a priority date of May 11, 2002. Thus, the priority date of the present application precedes the publication date of the applied art.

Further, Applicant would like to point out to the Examiner that his statement at the bottom of the Page 2 of the Detailed Action that "applicant's arguments are [an] incomplete analysis of the Hillenkamp reference" is not a basis for rejecting any claim nor does such statement establish *prima facie* anticipation. As mentioned above, the United States Patent and Trademark Office bears the burden to establish a *prima facie* case of anticipation.

Applicant respectfully requests that the Examiner specifically set forth in the next communication from the United States Patent and Trademark Office the rationale upon which claims 1-14 are rejected.

In view of the foregoing, reconsideration of the application and allowance of the pending claims are respectfully requested. Should the Examiner believe anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' representative at the telephone number listed below.

Should additional fees be necessary in connection with the filing of this paper or if a Petition for Extension of Time is required for timely acceptance of the same, the Commissioner is hereby authorized to charge Deposit Account No. 18-0013 for any such fees and Applicant(s) hereby petition for such extension of time.

Respectfully submitted,

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Enclosure(s): Amendment Transmittal